At this time of year it is well for pet owners to think of those factors which combine to produce a potentially fatal condition, heat stroke. Dogs and cats do not sweat; they lose heat primarily through the vaporization of moisture in their expired air. As the ambient temperature increases, their respirations increase in rate but not particularly in depth which is observed by the owner as “panting”. The cat can tolerate 5 degrees or so higher temperature than can the dog. Further, they help cool themselves by licking their coat which increases heat loss and, in fact, rarely suffer heat stress.

The development of heat stroke involves exposure of the animal to high temperatures for a period of time, with a resulting increase in body temperature, which if not corrected, will cause a circulatory shock and death. While the explanation is an over-simplification of the process, the body temperatures in the range of 107-109 degrees, which can easily occur with heat stress, cannot be tolerated by a dog for more than a few minutes before damage to the brain can occur.

A common scenario is the dog being left in a parked automobile during the very hot part of the day, while the owner goes into a store “just for a moment”. There is inevitably a delay in the store, or the person just loses track of time, while tremendously high temperatures are being reached in the car. When the owner returns there is real trouble. The dog is lying on it’s side, panting (rapid, but shallow breaths), with an expression that my range from anxious to one of
stupor; the gums have a grey-white or ashen color. The body temperature at this point could be at least 107 degrees or greater.

Immediate action to save the animal’s life is to reduce the body temperature as rapidly as possible. Ideally, the dog is immersed in cold water with a fan directed onto it. However, a tub and fan may not be handy so the use of any water source while keeping the dog in the shade and vigorously fanning it with a newspaper might be the best one could do until a better situation is available. The idea is to cool the animal to reduce that potentially lethal body temperature. Massaging the skin and flexing the joints during the cooling process will help the dog’s circulation.

The rectal temperature should be taken every few minutes until it reaches 102-103 degrees. The temperature should continue to be monitored for several hours to assure that there has been a recovery from the acute episode. It is highly recommended that a veterinary practitioner be called as soon as possible after the emergency procedures are begun, apprising him of the situation and reporting the dog’s vital signs. In most cases, the veterinarian will want to administer additional treatment to improve the chances of complete recovery.

Research results were reported a few ago on work done with dogs recovering from acute heat shock. It was found that some animals develop kidney problems as early as two weeks after recovery. Depending on the severity of the case, the veterinarian may advise a follow-up visit to determine if any damage has occurred to the renal or any other systems of the body.

Owners should keep their pets in a cool, comfortable environment during this hot weather. It is especially important in the monsoon reason as high temperatures with increased humidity is harder on the animal than hot, dry weather. Cool water should be available for them at all times.
Exercise the pet only in the cooler times of the day and then not as vigorously as in the cool seasons. Heat shock is avoidable, but the owner must exercise good judgment with his pets at all times.

For more information, please contact the University of Arizona Mohave County Cooperative Extension, 101 E. Beale Street, Ste. A, Kingman AZ 86401-5808, or telephone (928) 753-3788.

Contact: Rob Grumbles
Extension Agent, AG/NR
mohavece@cals.arizona.edu
The University of Arizona
Mohave County Cooperative Extension
101 E. Beale Street Ste A
Kingman AZ 86401-5808
(928) 753-3788 / (928) 753-1665 (fax)